

SIR SYED INSTITUTE FOR TECHNICAL STUDIES

TALIPARAMBA

(Affiliated to Kannur University)



DEPARTMENT OF COMPUTER SCIENCE

PRACTICAL RECORD

WEB AND PYTHON PROGRAMMING

B.Sc. COMPUTER SCIENCE (MAIN)

2021-2022

NAME.....

ROLL. NO.....

Reg. NO.....

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**Certified that this is the bonfide record of the work done in the laboratory Sir Syed
Institute for Technical Studies, Taliparamba**

By.....

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Submitted at the university practical examination... 2022
University Reg.No:

Date:

External Examiner:

- 1.
- 2.

WEB PROGRAMS

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WEB PROGRAMMING

1. Design a webpage containing the Programmes offered in your college with different types of headings, links and lists.

```
<html>
<head>
<title>SSITS</title>
</head>
<body bgcolor="#F2F4CF">
<div style="background-color:white">
<center><header><font color="red"><h1>SSITS</h1>
<h2>Karimbam</h2></header></font></center></div>
<center>
</center><br><br>
<div style="background-color:black">
<font color="white" size="5"><b>SSITS</b><i> The college is affiliated to Kannur university.It was
the first institution in Kannur university to provide such courses.</i><br><br>
<b>Along with the main stream courses the college conducts various courses.</b><font></div><br>
<a href="gallery.html"><h2>Gallery</h2></a><br>
<table width="1000" style="background-color:pink"><tr>
<td style="background-color:orange">
<h1><B>PROGRAM LIST</B></h1>
<font color="blue" size="6"><ul>
<li>BSc Computer Science</li>
<li>BCom</li>
<li>MSc Computer Science</li>
</ul></font>
</td></tr></table><br><br>
</body>
</html>
```

gallery.html

```
<html>
<body bgcolor="ivory">
<br><br><br>_____
<br><br>




<br><br><br>_____
<br><br>_____</b><br>
<a href="college.html" align="left">Home</a>
</body>
</html>
```

OUTPUT

SSITS

Karimbam



SSITS The college is affiliated to Kannur university. It was the first institution in Kannur university to provide such courses.

Along with the main stream courses the college conducts various courses.

Gallery

PROGRAM LIST

- BSc Computer Science
- BCom
- MSc Computer Science

gallery.html



[Home](#)

2. Insert an image into the webpage. Use appropriate attributes.

```
<html>
<head>
<title>Snow</title>
</head>
<body>
<br>
<caption><i>IMAGE WITH BORDER</i></caption>

</body>
</html>
```

OUTPUT

IMAGE WITH BORDER



3. Design a webpage showing the mark list of a student of B.Sc. Computer Science using Table. Use different attributes as necessary.

```
<html>
<body bgcolor="#F2F4CF">
<center><H1>Marklist</H1>
<br><br><br>
<table border="2">
<tbody><tr>
<td colspan="11"><b>Programme: BSc Computer Science<br>
Semester:Fourth Semester<br>
College:SSITS<br>
Name:AJAY</br>
</td>
</tr>
<tr>
<td>Course code</td>
<td>Course Title</td>
<td>Cr.</td>
<td>Max.Mark</td>
<td>IA</td>
<td>ESE</td>
<td>Total</td>
<td>GP</td>
<td>C.P</td>
<td>Result</td>
</tr>
<tr>
<td>4B01CSC</td>
<td>PYTHON</td>
<td>4</td>
<td>50</td>
<td>10</td>
<td>32</td>
<td>42</td>
<td>8.4</td>
<td>A</td>
<td>33.6</td>
<td>P</td>
</tr>
<tr>
<td>4B02CSC</td>
<td>WEB</td>
<td>3</td>
<td>50</td>
<td>10</td>
<td>34</td>
<td>44</td>
```

```

<td>6.6</td>
<td>C</td>
<td>26.4</td>
<td>P</td>
</tr>
<tr>
<td>4B03CSC</td>
<td>JAVA</td>
<td>4</td>
<td>50</td>
<td>9</td>
<td>24</td>
<td>33</td>
<td>6.6</td>
<td>C</td>
<td>26.4</td>
<td>P</td>
</tr>
<tr>
<td>4B04CSC</td>
<td>GRAPHICS</td>
<td>4</td>
<td>50</td>
<td>10</td>
<td>32</td>
<td>42</td>
<td>8.4</td>
<td>A</td>
<td>33.6</td>
<td>P</td>
</tr>
<tr>
<td>4B05CSC</td>
<td>OPEN</td>
<td>2</td>
<td>25</td>
<td>4</td>
<td>12</td>
<td>16</td>
<td>6.4</td>
<td>C</td>
<td>12.8</td>
<td>P</td>
</tr>
</body></table></center>
</body>
</html>

```

OUTPUT

Marklist

Programme: BSc Computer Science										
Semester:Fourth Semester										
College:SSITS										
Name:AJAY										
Course code	Course Title	Cr.	Max.Mark	IA	ESE	Total	GP	C.P	Result	
4B01CSC	PYTHON	4	50	10	32	42	8.4	A	33.6	P
4B02CSC	WEB	3	50	10	34	44	6.6	C	26.4	P
4B03CSC	JAVA	4	50	9	24	33	6.6	C	26.4	P
4B04CSC	GRAPHICS	4	50	10	32	42	8.4	A	33.6	P
4B05CSC	OPEN	2	25	4	12	16	6.4	C	12.8	P

4. Design an application form for admission to a course. It should contain different types of inputs. Use autocomplete attribute also.

```
<html>
<body bgcolor=" yellow">
<h1>Application form for admission</h1>
<form autocomplete="on">
<p><label>Candidate Name:<input type="text" name="name" required></label><BR>
<label>Address:<input type="text" name="address" required></label><BR>
<label>Mobile Number:<input type="text" name="number" required></label><BR>
<label>Email:<input type="email" name="email_address" required></label><BR>
<fieldset><legend>Gender</legend>
<label><input type="radio" name="gend" required>MALE</label><BR>
<label><input type="radio" name="gend" required>FEMALE</label><BR>
<label><input type="radio" name="gend" required>OTHERS</label><BR></fieldset>
<label>DOB:<input type="text" name="date" required></label><BR>
<label>UNIVERSITY
<select id="UTY" name="UNIVERSITY">
<option value="" selected="selected">SELECT ONE </option>
<option value="city">KANNUR</option>
<option value="city">KASARGODE</option></select></label><BR>
<label>BSC PROGRAMS
<select id="PGH" name="PGH">
<option value="" selected="selected">SELECT ONE </option>
<option value="sub1">COMPUTER SCIENCE</option>
</select>
</label><BR>
<label><input type="submit" value="REGISTER">
</label>
</form>
</body>
</html>
```

OUTPUT

Application form for admission

Candidate Name:

Address:

Mobile Number:

Email:

Gender

- ☐ MALE
☐ FEMALE
☐ OTHERS

DOB:

UNIVERSITY

BSC PROGRAMS

5. Write a JavaScript code using functions to perform arithmetic operations on two numbers.

```
<html>
<body>
<center>
<h1>Click Here to Perform Mathematical Calculation</h1><br>
<script>
var x=prompt("Enter your first number","Exp1");
var y=prompt("Enter your second number","Exp2");
var x1=parseInt(x);
var y1=parseInt(y);
</script>
<button onclick="plus()" >+</button>
<button onclick="minus()" >-</button>
<button onclick="star()" >*</button>
<button onclick="division()" >/</button>
<button onclick="mod()" >%</button>
<font color="Brown"><p id="demo"></p>
<script>
function plus()
{

var res=x1+y1;
document.getElementById("demo").innerHTML="RESULT ="
+res;
}
function plus()
{

var res=x1+y1;
document.getElementById("demo").innerHTML="RESULT ="
+res;
}
function minus()
{

var res=x1-y1;
document.getElementById("demo").innerHTML="RESULT ="
+res;
}
function star()
{

var res=x1*y1;
document.getElementById("demo").innerHTML="RESULT ="
+res;
}
```

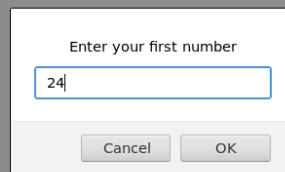
```
function division()
{

var res=x1/y1;
document.getElementById("demo").innerHTML="RESULT ="
+res;
}
function mod()
{

var res=x1%y1;
document.getElementById("demo").innerHTML="RESULT ="
+res;
}
</script>
</body>
</html>
```

OUTPUT

Click Here to Perform Mathematical Calculation

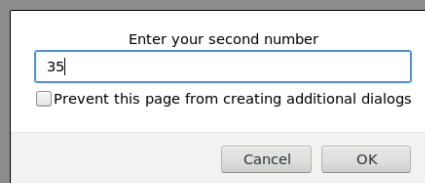


Enter your first number

24

Cancel OK

Click Here to Perform Mathematical Calculation



Enter your second number

35

☐ Prevent this page from creating additional dialogs

Cancel OK

Click Here to Perform Mathematical Calculation



Click Here to Perform Mathematical Calculation



RESULT=59

6. Write a JavaScript code to sort and reverse array elements.

```
<html>
<head></head>
<body>
<script language="javascript">
friends=new Array(5);
friends[0]="rafna";
friends[1]="hanna";
friends[2]="fathima";
friends[3]="sumadu";
friends[4]="pamms";
document.write(friends[0]+"<br>");
document.write(friends[1]+"<br>");
document.write(friends[2]+"<br>");
document.write(friends[3]+"<br>");
document.write(friends[4]+"<br>");
join_crt=friends.join();
reverse_crt=friends.reverse();
document.write(join_crt+"<br>");
document.write(reverse_crt);
</script>
</body>
</html>
```

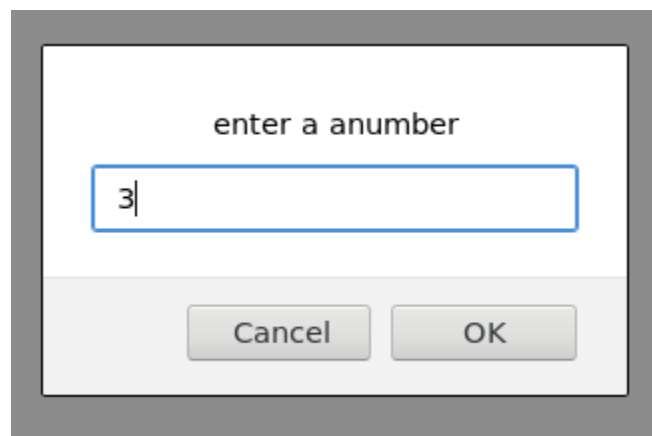
OUTPUT

```
rafna
hanna
fathima
suma
pamms
rafna,hanna,fathima,suma,pamms
pamms,suma,fathima,hanna,rafna
```

7. Java Script code to find the factorial of a number using recursion.

```
<html>
<body>
<script language="javascript">
var num=prompt("enter a anumber");
var fact=1;
while(num>0)
{
fact=fact*num;
num--;
}
document.write("factorial is "+fact);
</script>
</body>
</html>
```

OUTPUT



factorial is 6

8. Java Script code to show the working of math object. (Use at least 3 math functions)

```
<html>
<head>
<title> JavaScript Math Object</title>
</head>
<body>
<h2>JavaScript Math Object</h2>
<p id="p1" style = "color:green;"></p>
<script>document.getElementById("p1").innerHTML ="<p><b>Math.abs(-4.7):</b> " + Math.abs(-
4.7) + "</p>" + "<p><b>Math.ceil(4.4):</b> " + Math.ceil(4.4) + "</p>" + "<p><b>Math.min(0, 150,
30, 20, -8, -200):</b> " +Math.min(0, 150, 30, 20, -8, -200) + "</p>" + "<p><b>Math.random():</b> "
+ Math.random() + "</p>";
</script>
</body>
</html>
```

OUTPUT

JavaScript Math Object

Math.abs(-4.7): 4.7

Math.ceil(4.4): 5

Math.min(0, 150, 30, 20, -8, -200): -200

Math.random(): 0.13357619878067117

9. JavaScript code to display the current Date and Time.

```
<html>
<body bgcolor="red">
<p>date object with the current date and time:</p>
<p id="demo"></p>
<script>
const d = new Date();
document.getElementById("demo").innerHTML = d;
</script>
</body>
</html>
```

OUTPUT

date object with the current date and time:
Fri May 06 2022 04:41:45 GMT-0400 (Eastern Daylight Time)

PYTHON PROGRAMMING

1. Write a program to find the largest from a list of numbers

```
def find_max(list):
    max = list[0]
    for a in list:
        if a > max:
            max = a
    return max

num = int(input('How many numbers: '))

lst = []

for n in range(num):
    numbers = int(input('Enter numbers '))
    lst.append(numbers)

print("Largest element is :", find_max(lst))
```

OUTPUT

How many numbers:

3

Enter numbers

12

65

87

Largest element is: 87

2. Write a program to generate first n perfect numbers

```
x= int(input("Enter the limit:"))
print("\nPerfect Numbers".format(1,x))
for Number in range(1,x):
    Sum = 0
    for n in range(1, Number - 1):
        if(Number % n == 0):
            sum = Sum + n
    if(Sum == Number):
        print("%d " %Number)
```

OUTPUT

Enter the limit:200

Perfect Numbers 6

28

3. Write a program to perform binary search

```
def binary_search(arr, low, high, x):
    If high >= low:
        mid = (high + low) // 2
        if arr[mid] == x:
            return mid
        elif arr[mid] > x:
            return binary_search(arr, low, mid - 1, x)
        else:
            return binary_search(arr, mid + 1, high, x)
    else:
        return -1

arr = [2, 3, 4, 10, 40]
x = 10
result = binary_search(arr, 0, len(arr)-1, x)
if result != -1:
    print("Element is present at index", str(result))
else:
    print("Element is not present in array")
```

OUTPUT

Element is present at index 3

4. Write a program to find the square root of a number using bisection search method

```
x=25
dp = 0.01
numGuesses = 0
low = 0.0
high = x
ans = (high + low)/2.0
while abs(ans**2-x) >= dp:
    print('low = ' + str(low) + ' high = ' + str(high) + 'ans = ' + str(ans))
    numGuesses += 1
    if ans**2 < x:
        low = ans
    else:
        high = ans
ans = (high + low)/2.0
print('numGuesses = ' + str(numGuesses))
```

OUTPUT

```
low = 0.0 high = 25ans = 12.5
low = 0.0 high = 12.5ans = 6.25
low = 0.0 high = 6.25ans = 3.125
low = 3.125 high = 6.25ans = 4.6875
low = 4.6875 high = 6.25ans = 5.46875
low = 4.6875 high = 5.46875ans = 5.078125
low = 4.6875 high = 5.078125ans = 4.8828125
low = 4.8828125 high = 5.078125ans = 4.98046875
low = 4.98046875 high = 5.078125ans = 5.029296875
low = 4.98046875 high = 5.029296875ans = 5.0048828125
low = 4.98046875 high = 5.0048828125ans = 4.99267578125
low = 4.99267578125 high = 5.0048828125ans = 4.998779296875
low = 4.998779296875 high = 5.0048828125ans = 5.0018310546875
numGuesses = 13
5.00030517578125 is close to square root of 25
```

5. Write a program to generate Fibonacci series using recursion

```
def fib(n):  
    a = 0  
    b = 1  
    if n == 1:  
        print(a)  
    else:  
        print(a)  
        print(b)  
        for i in range(2,n):  
            c = a + b  
            a = b  
            b = c  
            print(c)  
fib(10)
```

OUTPUT

```
0  
1  
1  
2  
3  
5  
8  
13  
21  
34
```

6. Write a program to find LCM and GCD of 2 numbers

```
print("Enter Two Numbers: ", end="")
no = int(input())
nt = int(input())

a = no
b = nt
while b!=0:
    temp = b
    b = a%b
    a = temp

gcd = a
lcm = int((no*nt)/gcd)

print("\nLCM (" + str(no) + ", " + str(nt) + ") = ", lcm)
print("\nGCD (" + str(no) + ", " + str(nt) + ") = ", gcd)
```

OUTPUT

Enter Two Numbers: 21 14

LCM (21, 14) = 42

GCD (21, 14) = 7

7. Write a program to perform merge sort

```
def merge_sort(alist, start, end):
    """Sorts the list from indexes start to end - 1 inclusive.""" if end - start > 1:
        mid = (start + end)//2
        merge_sort(alist, start, mid)
        merge_sort(alist, mid, end)
        merge_list(alist, start, mid, end)

def merge_list(alist, start, mid, end):
    left = alist[start:mid]
    right = alist[mid:end]
    k = start
    i = 0
    j = 0
    while (start + i < mid and mid + j < end):
        if (left[i] <= right[j]):
            alist[k] = left[i]
            i = i + 1
        else:
            alist[k] = right[j]
            j = j + 1
            k = k + 1
    if start + i < mid:
        while k < end:
            alist[k] = left[i]
            i = i + 1
            k = k + 1
    else:
        while k < end: alist[k] = right[j] j = j + 1
            k = k + 1

alist = input('Enter the list of numbers: ').split()
alist = [int(x) for x in alist]
merge_sort(alist, 0, len(alist))
print('Sorted list: ', end='')
print(alist)
```

OUTPUT:

Enter the list of numbers: 7 87 56 34 23 1 9 8
Sorted list: [1, 7, 8, 9, 23, 34, 56, 87]

8. Write a program which reads the contents of a file and copy the contents to another file after changing all lowercase letters to uppercase. Exceptions should be handled

```
try:
    f1 = open("example.txt", "r")
    f2 = open("result.txt", "w")
    for line in f1:
        s=line.upper()
    print(s)
    f2.write(s)
    f1.close()
    f2.close()
except FileNotFoundError as error:
    print("Found an error=",error)
```

OUTPUT

HAI WELCOME TO PYTHON PROGRAMMING

9. Write a program to find the prime numbers in a list of numbers

```
lower =int(input("Enter the lower number"))
upper =int(input("Enter upper number"))

print("Prime numbers between", lower, "and", upper, "are:")

for numin range(lower, upper + 1):
# all prime numbers are greater than 1
    if num>1:
        for iin range(2, num):
            if (num % i) == 0:
                break
            else:
                print(num)
```

OUTPUT

```
Enter the lower number1
Enter upper number10
Prime numbers between 1 and 10 are:
2
3
5
7
```

10. Write a python program to perform the following

- a) create table students with fields name, sex, rollno, marks
- b) insert some rows into the table
- c) update the marks of all students by adding 2 marks
- d) delete a student with a given rollno
- e) display the details of a student with a given rollno

a) create table students with fields name,sex,rollno,marks

```
import pymysql db=pymysql.connect(host='localhost',user='root',password='redhat',database='stud')
cursor=db.cursor()
sql=" " " create table student(rollno int,sname char(20),sex char(20),marks int)""
cursor=execute(sql) db.commit()
db.close()
```

b) insert some rows into the table

```
import pymysql db=pymysql.connect(host='localhost',user='root',password='redhat',database='stud')
cursor=db.cursor() sql=" " " insert into
student(rollno,sname,sex,marks)values(1,'nimi','female',50)"" sql1=" " " insert into stu-
dent(rollno,sname,sex,marks)values(2,'delna','female',49)"" cursor.execute(sql)
cursor.execute(sql1) db.commit()
db.close()
```

c) update the marks of all students by adding 2 marks

```
import pymysql db=pymysql.connect(host='localhost',user='root',password='redhat',database='stud')
cursor=db.cursor()
sql=" " " update student set mark=mark+2"" cursor=execute(sql)
db.commit() db.close()
```

d) delete a student with a given rollno

```
import pymysql db=pymysql.connect(host='localhost',user='root',password='redhat',database='stud')
cursor=db.cursor()
sql=" " " delete from student where rollno=2"" cursor=exe-
cute(sql)
db.commit() db.close()
```

e) display the details of a student with a given rollno

```
import pymysql db=pymysql.connect(host='localhost',user='root',password='redhat',database='stud')  
    cursor=db.cursor()  
    sql=" " " select * from student where rollno=2"" cursor=execute(sql)  
    db.commit() db.close()
```